

Please delete the paragraph on page 43 at lines 7 through 18 and replace it with the following paragraph.

B2 In the first through sixth embodiments, the DNA probes 13, 14, 15 and 16 fixed to the DNA detecting cell are oligonucleotides each having a phosphoric acid diester bond between 2'-deoxyoligonucleosides. In the seventh embodiment of the invention, as shown in Figure 18, oligonucleotides each having a phosphorothioate bond (reference numeral 231) between 2'-deoxyoligonucleosides are used as the DNA probes 13, 14, 15 and 16 and fixed to the DNA detecting cell in the first through sixth embodiments. B shown in Figure 18 denotes a nucleic acid base (any of A, T, G and C). DNA probes having a phosphorothioate bond are not decomposed by S1 nuclease.

Please delete the paragraph on page 49 at lines 16 through 21 and replace it with the following paragraph.

B3 While Ru:dNTP or Ru:ddNTP is used to carry out the extending reaction of DNA probes hybridized with target DNA fragments in the first embodiment, the ninth embodiment uses a method involving no execution of the extending reaction. ECL-labeled oligonucleotide 28 is coupled to the target polynucleotide (target DNA fragments) 21 in advance.

IN THE CLAIMS

Please delete claims 15 through 19 and 26 through 29 without prejudice.

Please amend claims 1 through 14 and 20 through 25 as follows.

B4 1. (Amended) A polynucleotide assay apparatus comprising: